

REMARKS

Applicants have received and reviewed a final Office Action dated August 15, 2005. By way of response, Applicants have amended claims 1, 9, 19, and 23. Claims 1-6, 8-14, 16, and 19-24 are pending. In light of the following remarks, Applicants respectfully request withdrawal of the pending rejections and advancement of this application to allowance.

A. Amended Claims

Applicants have amended claims 1 and 19 to clarify that the HPLC column is formed with a superficially porous substantially pure inorganic silica particle as opposed to a hybrid particle that include both organic and inorganic elements. This amendment is intended to clarify the originally intended scope of the claims.

Applicants have further amended claims 1 and 19 to remove the term "less than 10%". The office action stated that neutral, polar, fluorinated organic compounds are not part of the claims because less than 10% reads on zero. This amendment is intended to clarify the originally intended scope of the claims includes neutral, polar, fluorinated organic compounds.

Applicants have amended claims 9 and 23 to expand the claimed group of polyfluorinated alcohols.

None of the foregoing amendments are intended to narrow the claims in any respect

B. Rejection of Claims Under § 103(a)

Claims 1-6, 8-14, 16, and 19-24 stand rejected under 35 U.S.C. § 103(a) as obvious over Gilar (Analytical Biochemistry 298, 196-206 (2001)) (hereinafter "Gilar") in view of a Review of Waters' New Hybrid Particle Technology and Its Use in High Performance Liquid Chromatography (HPLC), pages 1-4 (1999) (hereinafter "Waters"). Applicants respectfully traverse these rejections and do not concede any characterizations of the claims or the cited references made in the office action.

1. Cited Art Does Not Disclose Superficially Substantial Pure Inorganic Porous Silica Particle

In support of the rejection, the office action states it is obvious that Gilar's "Xterra MS C18 is a silica based support because Waters evidences that Gilar discloses a silica based support. However, Waters teaches a hybrid particle that "is a member of a class of material

known as organic/inorganic hybrids. These materials contain inorganic (e.g. silica) and organic (e.g. organosiloxane) elements, and thus share the advantages of both." See Waters at pages 1-2. This teaching is not a silica as set forth in the pending claims and defined in the specification.

A silica and a hybrid that contains silica elements in combination with organic elements are substantially different particles that have substantially different properties. Indeed, Waters itself teaches, "There is no way to meet such demands simply by modifying existing processes while maintaining the underlying silica base materials. The goal with hybrid technology was to take a quantum leap to a higher level of performance by radically changing the composition of the underlying chromatographic particle itself." Page 1 (emphasis added). The reference then goes on to explain the properties of the hybrid chromatographic particle and how they are different than silicas (see, e.g., Figures 2-5).

Therefore, Waters does not support the proposition that Gilar discloses a silica based support for the Xterra MS C18 or a substantially pure inorganic silica particle as set forth in the pending claims.

2. Gilar Fails to Teach "An Increased Column Lifetime"

Claim 1 (and hence dependent claims 2-6, 8-14, and 16) sets forth the presence of the neutral, polar, fluorinated organic compound in the mobile phase leads to an increased column lifetime. In sharp contrast, Gilar teaches choosing materials for an HPLC that increase the efficiency of separation and thus enhances mass spectrometry detection because they do not interfere with ionization within the mass spectrometer. There is no teaching or suggestion for a stabilizer within the column. Waters also fails to disclose that the presence of the neutral, polar, fluorinated organic compound in the mobile phase leads to an increased column lifetime.

Therefore, no combination of the cited references sets for all of the claimed elements set forth in claim 1 and its dependent claims (claims 2-6, 8-14, and 16).

3. Waters Explicitly Teaches Away From the Claimed Invention

Waters explicitly teaches away from using a superficially porous substantially pure inorganic silica particle. For example, Waters states, "There is no way to meet such demands simply by modifying existing processes while maintaining the underlying silica base materials. The goal with hybrid technology was to take a quantum leap to a higher level of performance by radically changing the composition of the underlying chromatographic particle itself." Page 1

(emphasis added). This passage from waters explicitly teaches away from using superficially porous substantially pure inorganic silica particles do not work and that one must use hybrid particles instead.

Therefore, one would not consider the Waters' reference or a combination that includes the Water's reference to achieve the claimed invention. The applicants respectfully submit that the claims are patentably distinct from the cited references and request withdrawal of the pending rejection.

Summary

In view of the foregoing remarks, Applicants respectfully submit that all of the pending claims are patentably distinct over the cited reference and request withdrawal of the pending rejections. Applicants further request advancement of this application to allowance.

Applicants note that there may be reasons that the pending claims are patentably distinct in addition to those raised in this response. Applicants reserve the right to raise any such argument in the future.

Please contact the undersigned attorney at the telephone number listed below, if the Examiner believes that doing so will expedite prosecution of this application.

Respectfully submitted,

Merchant & Gould P.C.
P.O. Box 2903
Minneapolis, MN 55402-0903
612/332-5300

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By: 

John C. Reich
Reg. No. 37,703
JReich:nma